- 22 -

## Claims:

- The use of an inhibitor of the t-PA-mediated activation of the glutamate receptor, preferably of the NMDA type, as neuroprotective.
  - 2. The use of an inhibitor as claimed in claim 1 for the treatment or prophylaxis of neuronal damage or conditions based on the excitotoxicity of the glutamate receptor.
  - 3. The use as claimed in claim 1 or 2 for the treatment of depression or anxiety states.
- 15 4. The use as claimed in either of claims 1 or 2, characterized by employment in the treatment of stroke.
- 5. The use as claimed in either of claims 1 or 2, characterized by the treatment or prophylaxis of one of the following conditions: Parkinsonism, Alzheimer's, Huntington's chorea, diabetes, painful conditions, epilepsy or memory disturbances.

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- 6. The use as claimed in any of the preceding claims, characterized by employment of a protease which inhibits t-PA activity.
- The use as claimed in claim 6, characterized by a serine protease inhibitor, preferably neuroserpin, plasminogen activator inhibitor (PAI) or protease nexin I (PN-1).
- 35 8. The use as claimed in any of claims 1 to 5, characterized by the use of DSPA or derivatives, analogs or fragments which can be functionally and/or structurally derived therefrom.

- 9. The use as claimed in claim 8, characterized in that DSPA having an amino acid sequence as shown in fig. 1 or DSPA derivatives, analogs or fragments having at least 70%, preferably 80 to 90%, homology thereto are used.
- The use as claimed in claim 8 or 9, characterized 10. by a dosage of greater than 62.5 and less than 160 microg/kg DSPA as shown in fig. 1, preferably 10 from 90 to 125 microg/kg DSPA, particularly preferably 90 microq/kg DSPA, or of a dosage adjusted thereto depending on the bioequivalence of the derivative, analog or fragment used.
- 15 11. The use as claimed in any of claims 8 to 10, characterized in that DSPA or derivatives, analogs or fragments thereof is employed as neuroprotective in the treatment of stroke in combination with a thrombolytic.

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12. The use as claimed in claim 11, characterized by t-PA as thrombolytic.